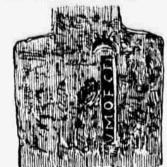
Born Once Barn Vield Naval Relies of the Day of Terrors of Hastings Horn-Poetry of Names that West with Gilt Beaks and Gorgon Prows - Two-handed Damascene Blades of the Seaudinavian Rovers.

As a model of a viking ship found under a mound is now crossing the Atlantic on its way to the World's Fair, and as the size of that ship is supposed, wrongly, to be that of those used by the Norsemen when they crossed the Atlantic and discovered the New World in the year 985, and on their subsequent voyages, I hought an account of their ships, from the time of the Romans, when the vikings loom on the history of the world, to that of their mighty invasions of the ninth, tenth, and eleventh centuries, might prove interesting, the more so as the models of the caravels that



BON SWORD BEARING LATIN INSCRIPTION. First let me say that the graves and antiquities found on the islands of the Baltie and in the present Scandinavia tell us that from very ancient times, long before our era, the people there led a seafaring life. In hundreds of mounds are remains of burned ships, which have been used as pyres for the burial of warriors; while tens of thousands of graves, with their weapons, bear witness of the warlike qualities of these seafaring tribes, so dreaded by the Romans. They show be-sides that a large population inhab-ited the country. The number of graves seen far exceeding those left behind by the Romans, and nowhere else is there seen in Europe, perhaps in the world, such a multitude of graves of the same type-witnesses of a military and seafaring people. These graves tell when the maritime power was with which Rome was unable to cone

Coins of Augustus, 20 B. C.-14 A. D., to those of the last Roman emperors, even coins of the Roman republic. exquisite Greek glass vessels and large numbers of objects of bronze of Roman and Greek manufacture, found in their graves and elsewhere, show how early the Norsemen went with their ships into the

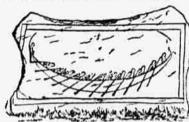


BOCK-TRACING-A CHAMPION DEPENDING HI BHIP

From the fragments left of these burned chips we cannot possibly get a knowledge of their shape, but engraved upon rocks are seen numerous ancient illustrations which give us an idea of the shape of some of their vessels.

Fortunately three ships of these Norsemen. one of which has been found in a bog, and two in mounds, show to us their naval architecture. Through the literature of the vikings we find that they had different appellations for their ships. The most powerful ships of war they had were called drek! (dragons), skeld, snekhjas, the dreki being the most formidable of all. Those less powerful went under the name of skuta, buza, karki. The general name given to their big ships of war was that flangskip, "long ships."

The first authoratic description we have of the ship of the Norsemen is that given by Tacitus in the first century. He writes:



BOCK-TRACING-SHIP PROPELLED BY OARS. "Hence the States of the Sucones (the Svia of the sagas), situated in the ocean itself, are not only powerful on land, but have also mighty fleets. The shape of their ships is different, in that, having a prow at each end. they are always ready for running on to the beach. They are not worked by sails, nor are their oars fastened to the sides in regular order, but let loose as in some rivers, so that they can be shifted here or there as circum-

stances may require." So we see that in the time of Tacitus the Norsemen were already powerful at sea. The ships seen by Tacitus were those used by the Norsemen to ascend rivers and row along the shores full of shoals off the coast of the present Belgium and Holland, a country over which he was Governor.

The following illustration, that of a boat dug out of a bog at Nydam, in the southern peninsula of Jutland, shows the correctness of Tacitus's description. This bog in earlier times was water. The length of the vessel is about seventy five or seventy-six feet, its widest part



KYDAM BOAT,

ten and a half feet: It has fourteen henches, and there are not two cartinoles alike. It was rowed by twenty-eight cars, the average tength of those found by the hoat was about 12 feet. The rouder, as seen by the illustration, is on the side and about 10 feet long. The boat had no mast, and no model of crafts of to-day could surpass its symmetrical proportions.

In the same box, which was probably a sacred pool where offerings were made, for holy springs are often mentioned in the signas, were found thirty-four Homan coins, or so-called denaril, of silver from the years in to 217 A. D. These were from Vitellius Hadrian, Antonius Pjus, Faustina the clder, Marcus Aurellus, Luclus Verus, Commodus, and Macrimus. That those coins were thrown into the water at once or at different times does not matter here. We know that the ships of the same type existed in the time of Tactius, and, consequently, before his time, thus showing that at that period the art of shipbuilding had attained a high standard in the North.

In the same bog were also found a great number of objects, such as bridles, still in the mouths; skeletons of horses; 100 double-edged swords, some with handles of wood, sometimes covered with silver, or of bone, or of massive bronze. Ninsty-three of these words were damascened, and some had later inscriptions upon the blade. Upon one were runes inhald in gold, for the Norsemen of these early days know the art of writing as well as the Homans and Greeks; also over 500, spear points, several of which were formamented with gold; several hundred arrow shafts, besides many other articles too numerous to mention here. In other bogs, lying aiways at the heads of the present fjords, have been discovered some of the richest linds, such as wearing apparel, superor Nero, Vitellius, Vespasian, Domitian, Fajan, and Adrian.

From the wearing apparel found we know that at the period just mentioned the Norsemen of the present fjords have been discovered some



DAR-THOLE OF RED PINE-NYDAM BOAT. OAR-THOLE OF RED FINE—NYDAM BOAT.

Fragments of an unburned ship of about the fifth or sixth century have been found under a mound at Ultuna, near Upsala, in Sweden, with antiquities, among which were a double-edged sword, a brars kettle, a helmet of fron, a shield boss of bronze, and several dice. These latter and checkers are not uncommon in graves.

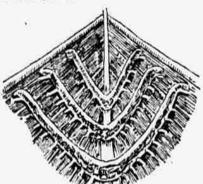
A shield boss of bronze, and several dies. These latter and checkers are not uncommon in graves.

The Tune ship found in a mound in the partish of that name in Norway was the first sailing ship discovered, which threw additional light on the manner of building ships by the Norsemen, and may have belonged to the seventh century. As seen in the illustration, there is a heavy log or block, with a hole for inserting the mast. The length was probably from seventy to seventy-live feet, the gunwales being destroyed. The our tholes are missing. The greatest width was about thirteen feet. The ponderous beam of the Tune ship, as seen, shows that in some ships the mast could be lowered at will, a fact sometimes mentioned in the sagas.

The Gokstad ship which has served as a model for the viking ship that is coming to us, is the most perfect specimen yet discovered, and consequently of great value. It may belong to the eighth or ninth century. On the deck is the mortuary chamber. The representation below is just as the ship is and as it came from the mound. I had the drawing made with the utmost care. The length of the ship is about seventy-live or seventy-six feet, its broadest part fifteen feet; from the number of



OAR-THOLE OF THE NYDAM BOAT.
holes seen, which are about eighteen inches below the gunwales, for oartholes are not used in the ship, we find that this vessel carried sixteen beaches and thirty-two oars. The length of the mound was J50 feet in diameter; height above the soil, fifteen feet; above the sea, eighteen feet. The prow of the ship was looking toward the water, as if ready to sail. The good preservation of the ship is due to the mound being made of blue clay, the decay of part of its gunwales being caused by the loose earth composing the unper part of the mound, through which the water filtered.
Found with the Gokstad ship were many fragments of wood carving belonging to the vessel, a few of which are here represented showing how exquisitely beautiful must have been the little craft. There were also many oar tholes which had belonged to the boats of the vessels, as on the ship Nydam, no two of them being alike. OAR-THOLE OF THE NYDAM BOAT. them being alike.



INSIDE VIEW OF ONE OF THE STERNS OF THE NYDAM BOAT.

All the ships found are of oak. The timbers, as seen in the illustrations, overlap each other, and are riveted, or what is called kinker built. From the vikings laws we learn that a ship that had to be baled three times in two days was reckoned to be unseaworthy.

Strange as it may seem to us, fronclad or battering-ram vessels were used by the vikings. In the tenth century Liot "the pale" had fifteen ships and a drek! covered with iron above the sea; it sailed through every ship; he called it the Jarnbardi. The different parts of a ship were the lynting, an elevated place where the commander stood and steered and from which he could survey the whole scane of battle, the stafn (prow), rausan (forecastle), fyrir-rom (forecom), so named on account of its being before the mast, and the krappazum, the third room from the storn.



WOODEN SCOOP FOR BAILING WATER OF NYDAM BOAT.

The war ships were always painted with red, purple, blue, or gilded; some are mentioned as being white and red above the water line. Some were sheathed with gold above the water line. The English chronicles verify the truthfulness of the sagas—they mention that Harold Haarfager gave to Athelstan a ship sheathed with gold above the water line. In war time the vikings often tarred their vessels, which after a while became of a grayish color, in order to deceive the onemy, and old salls were used to make them appear as merchattmen.

merchantmen.

They took great pride in the appearance of their ships. The commander was most conspicuous during the fight, dressed in full war dress, clad often with a golden helmet. Their standards or pennants were often gold embroidered, and flew at the mast head.



As the ships came into harbor they were lined with shields outside on the gunwale above the car tholes, the first one being somewhat ahead of the first oar, and the last a little babind the last oar. They overlapped each other, the outer edge of each touching the boss of the other. Often they were painted yellow or black, so that the contrast might be picturesque.

Beautiful sails were highly praised. They were made of course woollen generally, or of hemp, striped, of different colors, red, white, blue, and green being the most common colors. Sails are sometimes mentioned as being as white as new-fullen snow, or as being painted and embroidered. SILVER HELMET.



The size and power of a ship of war was always recognized by the number of her benches-that is, of the ears by which she was propelled. So vessels are often mentioned as being fifteen, twenty, twenty-five, thirty seaters and so on. The length of a ship is never given, and only in one instance, that of a ship called the Long Serpent, is it partially mentioned.

From the Nydam hoat and Gokstad ship we find that ships described as fourteen or sixteen scaters were about seventy-five or seventy-six feet along. Among the tragments of oars of the Gokstad boat one perfect oar was sixteen feet in length, about four feet longer than that of the Nydam, the vessel being wider and higher. The V spaces between the oars is CHAIN ABMOR.

THE TUNE SHIP. The finest dreki were gilded, both on the stem and stern, the head of the dragon adorning the prow, the tail the stern; sometimes they were covered above the water line with thin sneets of gold. The sight of these ships prosented a superb appearance as they gilded upon the sea with the rays of the sun glitter-

HELMET OF IRON, ULTUNA.

ing upon them, and the gay striped salls and golden weather vane and pennant floating in the breeze.



about three feet two inches. The rowing benches occupy about forty-six feet, the prow and stern the remaining thirty feet.

From these two vessels we can approximate the distance between each rower's beach in the larger ships mentioned in the sagas, and perhaps of the length of the cars used to propel them. Only in one instance is the length of cars mentioned in the sagas, that of the ship Ellidi, which were twenty-six feet in length, and the Ellidi was not a large ship.

If we take the exact measurements of the Gokatad ship and Nydam beat for the length of larger ships, we would find that a twenty-seater would be ninety feet, a twenty-live-seater would be ninety feet, a twenty-live-seater about one hundred and forty-two-feet. But these rules cannot be applied to find out the length of the larger ships—the same proportions cannot have been maintained. If there was forty-six feet space for the benches of a fifteen seater—of the Gokstad type—and thirty for prow and stem, a far greater space must be allowed for bigger ships: a ship rowed by twenty-six feet or thirty feet oars required a much larger space between the rowers. At lenst a space of eight or ten feet must have been left be ween the oar-tholes or benches of a thirty-five seater. We read that the ship Long Serpent, a thirty-four seater, had sixteen fighting men botween the benches; sixteen fighting men botween the benches; sixteen fighting men botween the benches; sixteen fighting men between the oar-tholes, the Long Serpent must have been of a length of 272 feet—and certainly the anace for and aft must have been double of that of the Gokstad ship. Then we have a ship of VIKING SHIP, USED FOR BURIAL—GORSTAD.

In one of the sagas we read: "During the winter King Barold had a large drek made and fitted out very spiendidly. He placed on it his body guard and berserks. The stern defenders were the most enrefully selected, for they carried the king's standard. That part aft of the prow near the jumping room, was called the foreroom, and was manned with berserks. Only those who surpassed others in strength and bravery and all kinds of skill got into the body guard of sing Harold."

The Hayeux tapestry, which still exists and represents scenes connected with William the Conqueror's invasion of England, gives several of the ships. In the illustration below one sees that the vessel was painted, and, according to the description of the sagas, that its sails were striped, and that the ship was lined with shields; that it was also decked, as proved by the feet of the men being near the level of the gunwales.



fore and aft must have been double of the of the Gokstad ship. Then we have a ship o 330 feet in length.

PRAGMENTS OF RING-ARMOR OF HAMMERED IRON.

When Knut (Canute) the Great sailed from Denmark to invade England we read in his pages: "Knut left the country with a great host and exceedingly large ships; he had himself a dragon so large that it had sixty benches; on it were heads ornamented with gold. Hakonjarl had another with forty benches, which had also gilt heads, and the sails of both were striped with blue, red, and green." We may say without exaggeration that if the Long Serpent had sixteen men between each bench Knut's great ahip must have had at least twenty-five, which made a crew of 1,500, and the length of his ship must have been over 400 feet.

RETTLE-ULTUNA BOAT.

SHIELD-BOSS OF BRONZE, WITH HANDLE OF IRON

COVERED WITH BRONZE-ULTUNA.

In 885 they appear, not for the first time, be-



at least twenty-five, which made a decided by least twenty-five, which made a decided by least twenty-five. The hearth of his ship must have been over 400 feet.

In the sags of Olat Tryggvason, when his enemies were watching for his fleet, bidden by land, we read:

"When the chiefs had talked together thus between themselves they saw three very large ships, and following them a fourth. They all saw a large dragon's head on the stern, ornamented so that it seemed made of pure gold, and it gleanned far and wide over the sea as the sun shone on it. As they looked at the ship they wondered greatly at its length, for the stem did not appear till long after they had seen the provy; then all knew and no one gainsaid that this was the Long Serpent. At this sight many a man grew silent. This was not strange, for the great ship carried death for many luen."

In the two sailing ships found the greatest breadth of beam is about one-fifth of their length, so a ship leb feet long had a width of all out thirty feet.

On the top of each mast of the war vessels on the top of each mast of the war vessels.

On the top of each mast of the war vessels on the top of each mast of the war vessels. breadth of beam is about one-fifth of their length, so a ship 180 feet long had a width of at out thirty feet.

On the top of each mast of the war vessels was a crow's nest, it was large enough to hold a certain number of warriors, who threw stones and shot upon the enemy.

The war ships' crews varied in number, according to the power of the commander. Many are mentioned as having a crew of two hundred and forty or fifty men. The most valiant were stationed at the prow and stern, but the Long Serpent and many other powerful ships of war had much larger crews.

The divisions between the rowers' benches were called rooms. These were subdivided into half rooms, in which many of the combatants were stationed, hence the fighting strength of a ship, as well as its size, was known by the number of its rooms, in expeditions, when the men were landed to fight, we always find that one-third of them remained on board to guard the ship.

The Long Serpent had thirty-four rooms, as I have said before; eight fighting men were in each half room, or sixteen in each room, thus making 574. We have also the warriors in the prow and stern, bestides three or four men at each our and a warrior on each side to protect the rowers. So the long Serpent and eight hundred men.



regular flory serpent came suddenly from the road, and wound and wingled and zigzanged its way toward Weston, travelling as fast as a steam engine.

"According to the farmer's data this flory snake was 30 feet long and a foot and a half in diameter. Now, naturally, one would suppose that a snake carrying as much flore as that along with it would quickly raise the temperature of the weather in any district it was travelling through, but things worked just the contrary with this snake. As it approached Earmer Weston he could feel the temperature getting rapidly lower, until he was sure it felt way below zero. This alarmed the farmer, for he hadn't things just fixed around the premises for such a sudden and unprecedented change in the weather. Although the fiery serpent was coming right at him, accompanied by the soughing noise he had heard. Farmer Weston did not move from his tracks. But the snake suddenly changed its course when it had come within twenty feet of him and made directly toward the barn. As the snake turned from its course the sound that was travelling with it changed and became exactly such a noise as is made by a steam gong. At the same instant Weston felt a sharp electric shock, and he was unable to move a muscle or utter a sound. He was like one paralyzed.

"The snake made straight for the barn, climbed right up the side of the building to the roof, and for five minutes contorted itself in flery gyrations all around the outside of the building burst into flames, but nothing of the kind occurred. At last the flery surpent climbed to the peak of the roof and raised up on one end of itself perpondicularly in the air, where it swayed and whirled for a minute or more, when there came a sound like the report of a distant cannon, and the startling exhibition was at an end. The fiery serpent disapneared as if it had never been. With the report that doused the glim of the snake, so to speak, farmer Weston felt another strong electric shock, but it seemed to come as an antidote to the first one, for he in

In 885 they appear, not for the first time, before Paris. Abuse describes their sudden appearance before that city:

"The Lutetia (Paris) blood was poured out of these barbarians, who came on board of seven hundred, vessels and innumerable smaller ships called barks. The doen water bed of the Seine was so covered by them that its water could not be seen for a space more than six miles. One asked with astonishment in what cave the river had hidden itself; it could not be seen: the pine, the oax, and the alder entirely concealed its surface." Then he mentioned that this same fleet landed forty thousand men, and that these made three huge machines on sixteen wheels, monsters made of immense oak trees bound together. Upon each was placed a battering ram covered with a high roof.

sent it down.

"The first thing Farmer Weston did was to go back to his house and confide to his wife what he had seen. She was inclined to poshpool him, but at last accombanied him to the barn with a lantern. They were confronted with startling surprises. The first was the effect the flory serpent's sport had had on the barn. The building was covered with what seemed to be a network of icy ropes, evidently marking where the snake had flashed about on, around, and over the barn. But the network wasn't ice. So far from it that a lighted candle held against the substance would not melt it. Going into the barn they found their two horses standing motionless in their stalls. They were alive warm to the touch, and breathing naturally. But they were powerless, even under the lashing of a whip, to move a muscle. The shapherd dog lay on the barn floor, inst as he had gone to sleep. The farmer soon discovered that the dog was lifeless. He stooped down to move him, and was amazed to find that he could not budge him, and it required the strength of both weston and his wife to lift him. He had turned to solid stone. Three days passed, during which time the Weston farm was througed with people who flocked to see the amazing seprences of the flery serpent's visit, and the two horses, showing no sign of recovering from their strange paralysis, were killed. In the course of a week the labyrintine trail of the serpent on the barn crumtiled away and fell off, so that the only tangible evidence of the appearance of the flery, freezing, and paralyzing serpent that Farmer Woston has on hand is the petrilled dog. I would have gone up to Delphi and pondered on that dog, but I had to get back home to old Steuben in time for town meeting, and missod the chance." The majority of the seven hundred ships were certainly far larger than the Gokstad ship or they could not have landed forty thousand men. Many of these ships carried the horses of their cavalry, and many were provision ships for fleets were always accompanied by them. Butter, cheese, dried or saited smoked fish, or meat and hard bread of the kind used to-day in Norway and Sweden, made the staple of food. Ale and beer are often mentioned with the provisions.

A SNAKE DUEL It Lasted Eleven Hours, and Then the King

"It seems a preposterous thing to say, but snake that enjoys making its dinner on another snake won't miss its meal because the snake it has set out to dine on is a good deal bigger than itself," said a naturalist. "At least a kingsnake won't. Neither will a blacksnake; but, as a matter of fact, the kingsnake is only a species of blackspake. Nothing in the snake line suits this famiterrible of reptiles, the rattiesnake. Squirrels, frogs, rabbits, birds, and other fat paley, edible things of the animal kingdom that buman epicares delight in, are particularly choice to the taste of the kingsnake and its cousin, the blacksnake, but either one of hese discriminating serpents will give the squirrel, the frog the rabbit, or the bird the go-by, if it scents a rattlesnake in the air. And if there is a rattlesnake anywhere within a ten-acre lot, where one of these crosping epicures is looking out for something to cat. it will know it at once and proceed to gather it in.

"I had once a striking proof of the pugnacity and wonderful capacity of a kingsnake in dealing with a raitler, and also of the remarkable tenacity of the rattler under most disadvantageous circumstances. Naturally one would think that the rattlesnake, armed as it is with its deadly poison and apt means to use it effectually, would be the last thing to be attacked by a snake entirely harmless in that respect; and that if attacked by one of that kind it would make short work of such a proposterous assailant. But the fact is that venomous snakes stand in mortal fear of non-venomous ones. A rattier, loaded with chough poison to kill a bear, will turn

of the room. But he knew what he was doing. The rattlesnake had given up. He had to. He was as dead as a stone.

"I know those two snakes had been fighting eleven hours. If the kingsnake had turned over and died after all that I would have thought no less of him. But he didn't. He had started in to have a meal on that rattlesnake, and he still purposed having it. He lay in the corner of the room perhaps twenty minutes, and then, without noticing my friend and myself, glided out toward the dead rattler. He went up to it confluently, and beginning at the head, liked its body down on one side clear to the tail, and we could see a thick, oily substance deposited on the scales of the dead raptile. Having intericated one side, the kingsnake returned to the head again, and liked the body all the way down on the other side. Then going back to the head the kingsnake threw open his laws, and without any ceremony began to swallow his late antagonist, though the rattler was almost two feet longer than himself and three inches bigger around. This was too interesting a process to miss, and we made a night of it watching it. I am unable to say how that kingsnake put that rattler, so much bigger than himself, inside of himself, but by 8 oclock in the morning the last bit of the rattlesnake had been forced into the kingsnake stomach. But the kingsnake was a sight! He was about the shape of a toni sha, and after the process of gorging was over he seemed to be, and we thought he was meller, and in three weeks he began to get smaller, and in three weeks he began to get smaller, and in three weeks he was up and was over he seemed to be, and we thought he was, as dead as the snake he had swallowed, it we let him lie. In a week he began to get smaller, and in three weeks he was up and about, evidently looking for a chance at another rattler. So we turned him out of the house and he went gliding out on the prairie with fire in his eye, and I pity the first rattle-snake he sighted."

LIFE MASTODONS IN ALASKA? Indian Hunters Tell Circumstantial Stories

of Seeing Such Monsters. The Stickeen Indians positively assert that within the last live years they have frequently seen animals which, from the descriptions given, must be mastedons. Inst spring while out hunting one of these Indians came across a series of large tracks, each the size of the bottom of a sait barrel, sunk deep in the moss, ile followed the curious trail for some miles, finally coming out in full view of his game. As a class these Indians are the bravest of hunters, but the proportions of this new species of game filled the hunter with forror, and he took to switt and immediate flight. He described the creature as being as large as a post frader's store, with great, shining, yellowish white tusks and a mouth large enough to swallow a man at a single gulp. He further says that the animal was undoubtedly of the same species as those whose bones and tusks lie allower that section of the country. The fact that other hunters have told of seeing these monsters browning on the herbs up along the river gives a certain probability to the story. Over on Forty-mile Creek bones of mastedons are quite plentifut. One ivory task nine fact long proposts from one of the sand dunes on that creek, and single teath have been found that were so large that they would be a good load for one man to carry. I believe that the mute-footed hog still exists; also that live mastedons play tag with the aurors every night on Forty-mile Creek in Alsaka. From the Juneau Free Press.

THE HEMLOCK WOODS PORCUPINE. Curious Little Bentzen of the Lumbe

Hannishuno, May 6,-"There are probably more porcupines, as the natives call them. in the hemlock woods of Potter and Mc Kean counties than anywhere else in this country," said the Hon, R. S. White of Potter county, "and they are curious creatures. A greater pest to lumber camps does not exist anywhere. One remarkably peculiar thing about them is their passionate fondness for sait. If the four sides of a lumber camp shanty should be saited from ground to roof, a colony of porcupines would soon be on hand, and they would eat the shanty from over the very heads of its occu-pants, and not leave a splinter to mark the spot where it stood. They don't mind a man or a dozen men if there is sult in a camp, and they will persist in getting to it just as long as one of them is left alive. They are as determined and unfaltering in this as a Texas pec cary is in its attempts to get at an enemy that has harmed one of its kind. A percary dies. but never surrenders. So it is with these little hemlock porcupines when they are after sait.

"One of the most striking illustrations of this singular infatuation occurred last summer in McKean county. A regular drove of porcupines made a night raid on an old lumber camp shanty which had been taken up by s couple of bark parlers. They were waked up in the night by the porcupines tramping over thom as they lay in their blankets on the floor, and they were kept awake a long time thereafter by the determination of the animals to take possession of the place. With their axes the bark peelers fought the bold and persistent porcupines, and it was not until they had killed the whole drove. thirty in number, that they were able to go to

Manya valuable hunting dog has been ruined by these quills, so many of them entering his nose and mouth as to destroy his nose, if not injuring him so that he has to be killed. An important part of a deer hunter's equipment in that part of leansylvania is apt to be a pair of pincers, which are used to pull from the dog's nose and mouth the quills of some porcupine he may have unwisely tackled. The quills sink so doep into the flesh that it is almost impossible to remove them with one's ingers, and the longer they are left in the deeper they insert themselves, acting in this respect like a needlo. Any portion of a norcupine's quill left in a dog's flesh would in time result disastrously if not fatally.

These porcupines," says an old Potter county woodsman, "are a sreat nuisance and annoyance to hunters who use deer licks. There were formerly many natural deer licks in northwestern Pennsylvania, but nowadays the hunter who chooses to bax his deer by that means makes an artificial lick by salting some favorable spot, to which the unsuspecting deer will be attracted. That will also attract the salt-loving porcupines, and once a porcupine gets into a deer lick no deer will come to it for perhaps a year, some scent making it offensive to the sensitive and suspicious deer. But, for the matter of that, it doesn't take much to make deer shy of a lick. The dropping of a piece of from in one will spoil a lick for many a day, the smell of from being something that a deer seems to dread. If a deer is shot in a lick and a drop of its blood is spilled there, no other deer will come to that lick until rain has failen and washed all sight and scent of the blood away.

"While these hemlock-woods porcupines are as a general fliing, quiet and neceable creatures, the males, at a certain season of the year, are most fleice and terrific fighters among themselves. Two male porcupines meeting at such times will fill the woods with yells and sceneches, and these frightful noises are mistaken, even by old woodsmen, for the yells of the

Camels to Australia. From the Philadelphia Public Ledge.

Promite Philadelphia Public Ledge.

Although the camed proved unsatisfactory for use as a beast of burden in the mining regions of Nevada and Arroona, the aniumi is rapidly coming into favor and profitatio use in mining countries in other parts of the world. It seems probable to the mining industry that in South Africa the camed will take the place of the horse for most use, as the camed is not injured by the insects which prove fatal to the horse and the bullock, nor is it attacked by the diseases that destroy other beasts of burden. The Gormans are already making great use of the camed is not insouthwest Africa. They are found to be very valuable for making long journers into the arid interior regions of the country, as they are able to travel a whole week without water or food. In Australia the camed is fast taking the place of bullocks for use in the barren interior regions. It is stated that there are already opened up and it, regular work in Australia five lines of camed traffic, and that on these lines of camed traffic, and that on these lines over 2,000 cameds are in daily use. Cameds are found to be as used if it that the number entry over 400 cameds are in daily use. Cameds are found to be as used for the data the number entry over 400 cameds are in daily use. Cameds are found to be as used if that the number entry over 400 cameds are in daily use. In the invertor of Australia are 1,000,000 square miles of almost unknown desert, and it is on the great inhand plains that it is intended to utilize the camed trains, as by their use the various onsess of evillization may to more directly connected than by the old bullock routes. On the arid plains and among the much first and brascisch lates the camed finds plenty of coarse grass and thorny shrubs on which to subsist. It is claimed that work can be found in Australia for 1,000,000 cameds.

SKULLS AND CROSSBONES.

HOW YOUNG DOCTORS OBTAIN THEIR ANATOMICAL SUBJECTS.

European Exportation of Cadavers to America-Scientific Preparation of Bones -Market Quantations of Skeletons and

Methods of Disarticulation,

For some time past medical students and lecturers have found it more difficult than usual to obtain skeletons. The demand so far exceeds the supply that dealers find it almost impossible to fill their customers orders. Secret societies, too, are sufferorders. Secret societies, too, are substing inconvenience, for they cannot obtain the skulls and femure or thigh bones which they use in their initiation ceremonies. It is a strange fact that in this country, where our surgeons and physicians are as eager to advance medical knowledge as those of any nation in the world. they are handleapped, as far as the bones of the body are concerned, by the authorities. While the supply of bodies for the dissecting rooms is not ample, yet it is sufficient to keep the students busy. But beyond the hospital people the body must not go. Its final disposition must be accounted for. That final disposition must not be the skeleton bleachery. Of source bones and skulls will find their way to the stu-dents' rooms, and there are few doctors who do not preserve a skull as a reminiscence of the days spent among "stiffs." The simplest operation of cleaning covered bones is to macerate the flesh and then subject the part to boiling. After the flesh has been brought to a consis-tency almost equivalent to jelly it is scraped and picked off. The bone or skull is then treated with a solution of peroxide of hydrogen, which removed any remaining grease or particles and leaves the bone quite clean.

Peivis female, with ligaments 10 00
Peivis female, with ligaments 7 00
The finest work ever bestowed on a skeleton can be seen in that used by the prestidigitatour, Herrmann, although it is not very likely that he will permit any one to examine it.

STRANGE MASONIC CEREMONY.

Gethnemane Chapter of Oakland Receives the Heart of a Man Who Died for Masonry. SAN FRANCISCO, April 30 .- A strange coremony was performed in Oakland on Mo night last, and within a few days there will be buried somewhere within the Masonic Temple in Oakland the heart of a man who died for Masonry. The ceremony was the receipt of the heart by Gethsemane Chapter, No. 5, Rose Croix, of the Scottish Rite of Masonry, and the formal assuming of the care of it by the charter. The heart was that of Ygnacio Herrara y Cairo, who was Governor of the State of Jalisco, Mexico, thirty-five years ago. who was killed, the Masons say, because he was one of the first Masons in Mexico. The murder was committed thirty-five years ago. and until the present time the heart was carefully preserved in Mexico, where, the Masons say, will always be a mystery except among the craft. It finally came into the possession of Mrs. Rosalia De L. Coney, wife of Alexander K. Coney, now the Consul-General of Mexico.

in San Francisco.

Mrs. Coney was in childhood a favorite of the unfortunate Governor, and knew of his wish to have his heart buried where it would never

unfortunate Governor, and knew of his wish to have his heart buried where it would never be disturbed. She alone knows the secret of how the heart was kept all these years and where, but she refuses to divalge it. The heart was brought from Mexico to Oakland hast January by Mrs. Cher. Her mission is thus described in a souvenir Issued by the Oakland chapter.

"She had power of attorney from the family to act. to whom she explained her object, and they consented. She then tried to find where they consented she they consented she they consented all these years. It was with difficulty that ahe was able to obtain peasession of them which could only be done by purchasing a sequiches they were temporarily densited, to be somewel, if expodict, to Oakland, Cal., here after, where a monument to our murdered brother may in time he erected. The heart is the has safely brought in her arms all the way from Guadalajara, and is to be delivered by her and received with due reverence and appropriate ceremonies.

The ceremonies of Monday evening were unique. There were many prominent Masons present, representing the United States and Mexico, Both Mr. Coney and his wife were present. After lutroductory ceremoules Internet of Egnacio History research the caskst and a painted portrait of Egnacio History ceremoules Internet the contrait of Egnacio Hi